ABSTRACT OF THE DISCLOSURE

APPARATUS AND METHOD FOR SWAPPING-OUT REAL MEMORY BY INHIBITING I/O OPERATIONS TO A MEMORY REGION

An apparatus and method for swapping out real memory by inhibiting input/output (I/O) operations to a memory region are provided. The apparatus and method provide a mechanism in which a quiesce indicator is provided in a field containing the current outstanding I/O count associated with the memory region whose real memory is to be swapped out. The current I/O field and the quiesce indicator are used as a means for communicating between a shared resource arbitrator and a guest consumer. When the quiesce indicator is set, the guest consumer is informed that it should not send any further I/O operations to that memory region. When the number of pending I/O operations against the memory region is zero, a valid bit in a protection table is set to invalid, and the real memory associated with the memory region may be swapped out. Thereafter, when the memory region is swapped back in, an address translation table is updated, the valid bit is reset, and the quiesce indicator is reset so that further I/O operations to the memory region may occur.